

Solve for y

①

$$-x + 2y = 6$$

$$\frac{2y}{2} = \frac{-x}{2} + \frac{6}{2}$$

$$y = \frac{-x}{2} + 3$$

②

$$-\frac{2}{2}x + 3y = 6$$

$$\frac{3y}{3} = \frac{-2x}{3} + \frac{6}{3}$$

$$y = -\frac{1}{2}x + 3$$

③

$$-3 + 2y = 8x$$

$$\frac{2y}{2} = \frac{8x}{2} - \frac{3}{2}$$

$$y = -\frac{2}{3}x + 2$$

$$y = 4x - \frac{3}{2}$$

$$y = \frac{-x + 6}{2}$$

16) Yes. $\frac{x}{6}$ $\frac{y}{19}$

21) Yes

17) Yes $\frac{x}{4}$ $\frac{y}{20}$

$\frac{x}{5}$ $\frac{y}{-14}$

18) NO

19) Yes $\frac{x}{-4}$ $\frac{y}{-23}$

20) Yes $\frac{x}{8}$ $\frac{y}{-29}$

Slope - $\frac{\text{rise}}{\text{run}}$; Steepness of a line

Slope formula - $m = \frac{y_2 - y_1}{x_2 - x_1}$ or $\frac{y_1 - y_2}{x_1 - x_2}$

x-intercept - where line intersects
x-axis (hits)

y-intercept - where line intersects
y-axis (hits)

Slope intercept form - $y = mx + b$

Standard form - $ax + by = c$

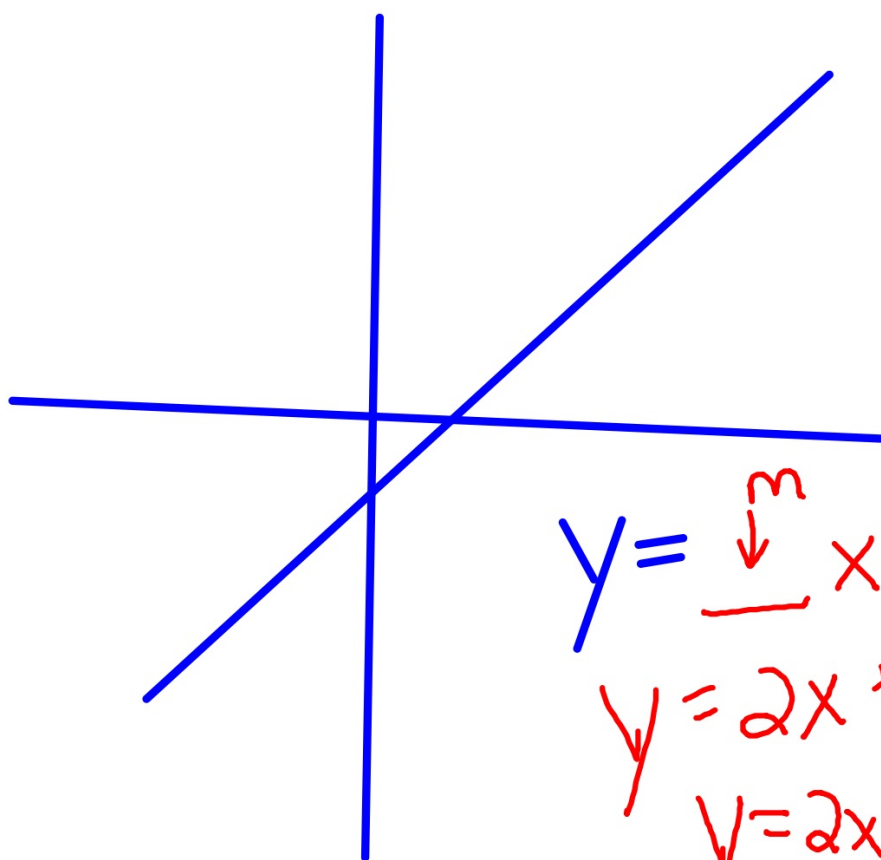
$$(x_1, y_1) + (x_2, y_2)$$
$$(0, 4) + (3, 1)$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{1 - 4}{3 - 0} = \frac{-3}{3} = -1$$

$$(x_1, y_1) + (x_2, y_2)$$
$$(-5, 3) + (3, -4)$$

$$\frac{-4 - 3}{3 - (-5)} = \frac{-7}{8}$$



$$y = \underset{\substack{\uparrow \\ m}}{\quad} x + \underset{\substack{\uparrow \\ b}}{\quad}$$
$$y = 2x + -5$$
$$y = 2x - 5$$